AM-FM STEREO TUNER

KT-28

SERVICE MANUAL

KENWOOD

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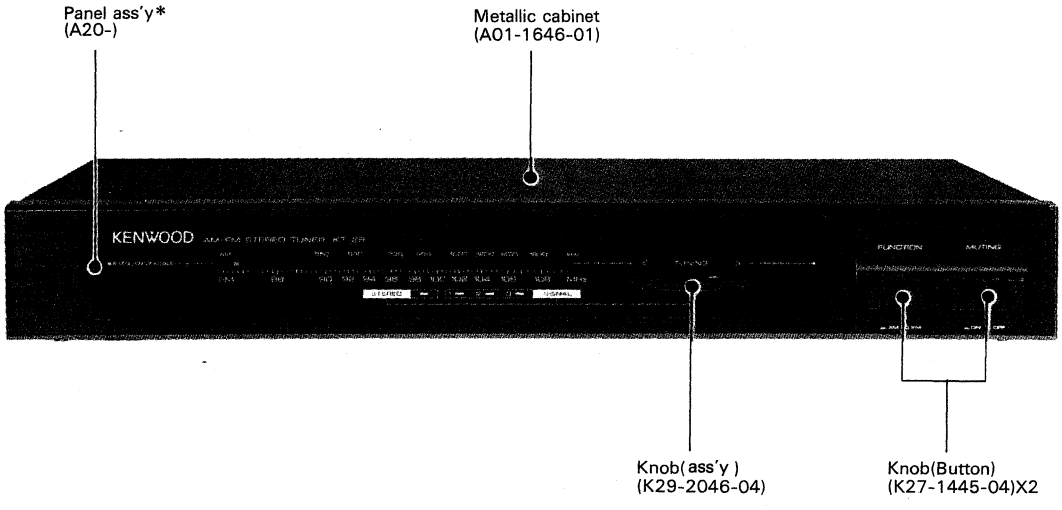
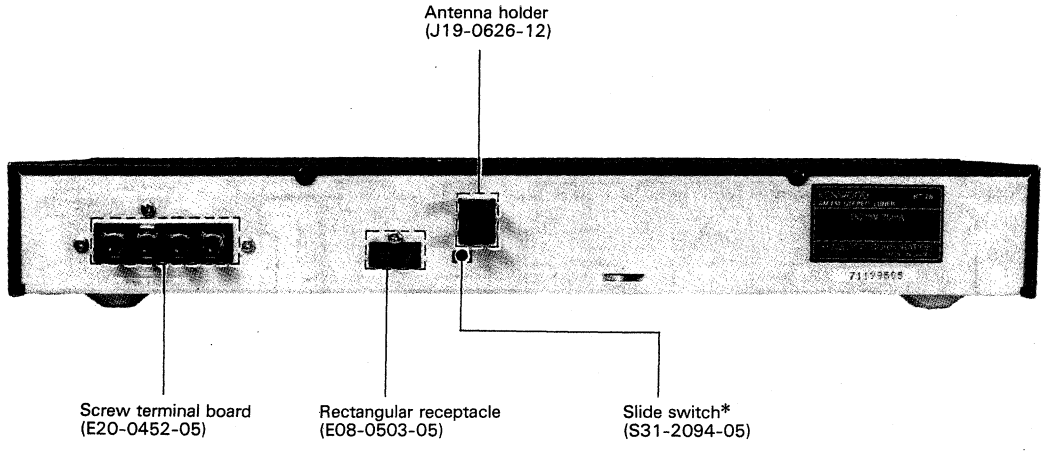
B51-3437-00(J)334





Note: When doing service of KT-28 be sure to have the customer bring the KAX-38 or use the DC power supply.

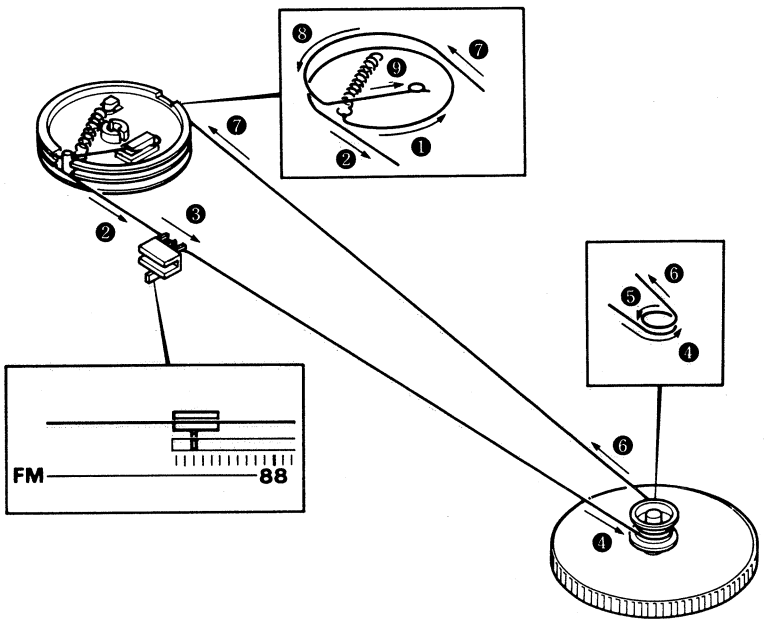
*** Refer to parts list on page 15**

KT-28

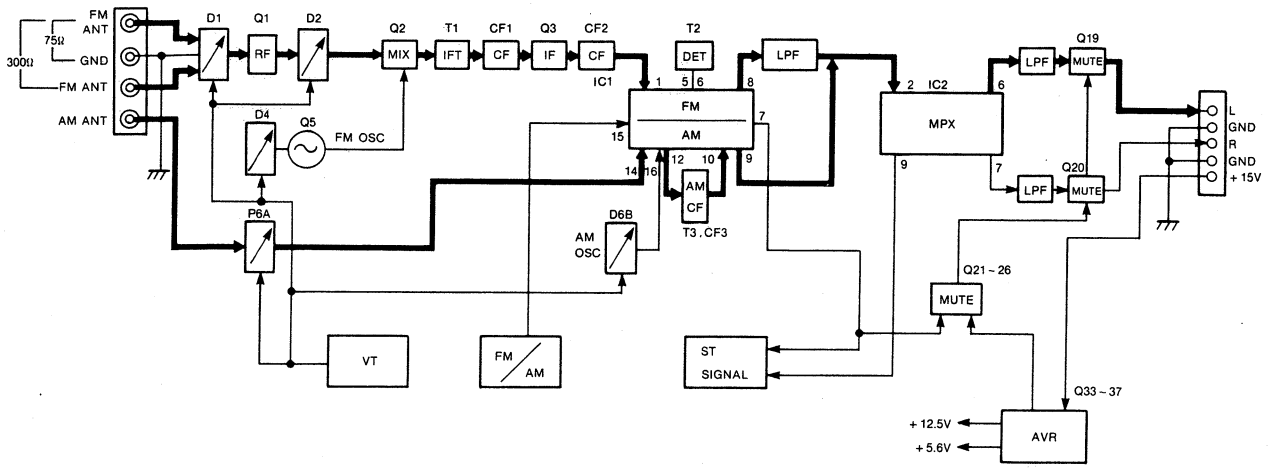
DIAL CORD STRINGING

❶ Completely turn the Dial drum attached to the variable condenser to the left (Counter Clockwise) and apply cord in numerical order as shown in the Figure.

❷ After applying the cord, completely turn the tuning knob to the right (clockwise) and attach the dial pointer to the position of lowest frequency.



BLOCK DIAGRAM



CIRCUIT DESCRIPTION

Function of components

Tuner unit (X05-2890-20)

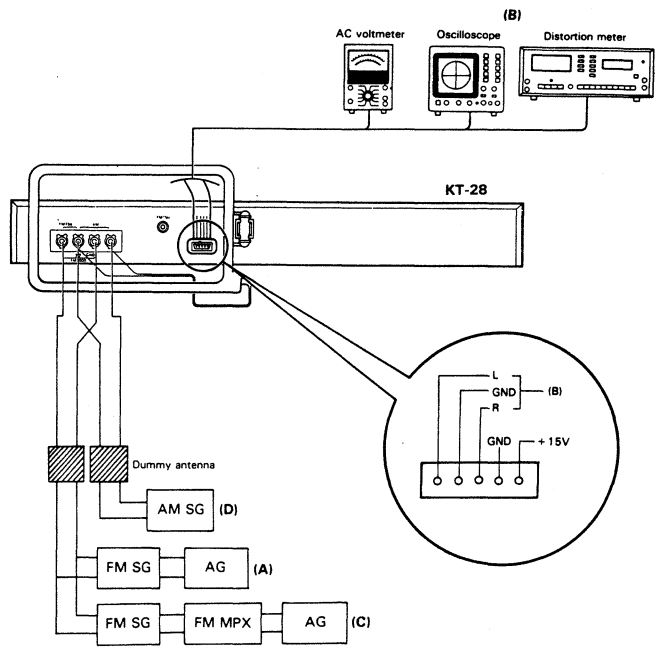
Components	Use/Function	Operation/Condition/Interchangeability
IC1(LA1260)	FM/AM system IC	FM IF amplifying, detection and control. AM mixing, IF amplifying and detection.
IC2(AN7470)	MPX	MPX demodulation
Q1	FM RF amplifier	
Q2	FM mixer	
Q3	FM IF amplifier	
Q5	FM oscillator	
Q8	Switch	On in the FM mode, to change the IC to the FM mode.
Q19, 20	Muting	ON when muting.
Q21	Power mute drive	ON when the Q33 is OFF. It becomes the drive source for muting.
Q22	Mute logic synthesis	Synthesises the power mute and selecter mute signals.
Q23, 24	Mute drive	Drives the Q19, 20.
Q25	Tuning detection	Detects the tuned signals of the IC1, and turns the Q23 OFF when tuning.
Q26	Selecter mute detection	Detects change-over of the selecter switch. It becomes the drive source for muting immediately.
Q33	Power mute detection	OFF in the transition of ON/OFF and drives the Q21. (ON in normal operation and OFF the Q21)
Q34~36	Stabilizing power circuit	
Q37	5.6V stabilizing power circuit	
D1, 2	RF tuning varactor diode	
D4	OSC varactor diode	
D5A	AM RF tuning varactor diode	
D5B	AM OSC varactor diode	
D7	Switch (VCO killer)	ON in the AM mode and cuts VCO's activation of the PLL MPX.
D12	Reference voltage zener diode for tuning	
D14	Reference voltage zener diode	6.2V
D24	Varister for AFC	
D25		For shock muting when the FM mode is ON.
D26		For shock muting when the AM mode is ON.
D28	Clamper	Prevents breakdown of the circuit caused by high voltage static electricity.

KT-28

ADJUSTMENT

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		Unless otherwise specified, the individual switches should be set as following: SELECTOR: FM					
1	BAND EDGE (1)	(A) 88.0MHz 1kHz, ±75kHz dev	(B)	88.0MHz	L7	Maximum amplitude and symmetry of the oscilloscope display.	
2	BAND EDGE (2)	(A) 108.0MHz 1kHz, ±75kHz dev	(B)	108.0MHz	TC1	Maximum amplitude and symmetry of the oscilloscope display.	
		Repeat alignments 1 and 2 several times.					
3	RF ALIGNMENT	(A) 98.0MHz 1kHz, ±75kHz dev	(B)	MONO 98.0MHz	L2, 4	Maximum amplitude and symmetry of the oscilloscope display.	
4	DISCRIMINATOR	(A) 98.0MHz 1kHz, ±75kHz dev 60dBμ(ANT input)	–	MONO 98.0MHz	T2	Minimum distortion.	
5	VCO	(A) 98.0MHz 0 dev 60dBμ(ANT input)	Connect a 330kΩ resistor to TP11. Connect a frequency counter to the resistor via an AC voltmeter.	98.0MHz	VR1	19.00kHz	(a)
AM SECTION		Keep the AM loop antenna installed. SELECTOR: AM					
(1)	BAND EDGE (1)	–	(B)	528kHz	L9	Maximum amplitude and symmetry of the oscilloscope display.	
(2)	BAND EDGE (2)	–	(B)	1611kHz	TC3	Maximum amplitude and symmetry of the oscilloscope display.	
		Repeat alignments (1) and (2) several times.					
(3)	RF ALIGNMENT (1)	(C) 600kHz 400Hz, 30% mod	(B)	600kHz	L11	Maximum amplitude and symmetry of the oscilloscope display.	
(4)	RF ALIGNMENT (2)	(C) 1400kHz 400Hz, 30% mod	(B)	1400kHz	TC2	Maximum amplitude and symmetry of the oscilloscope display.	
		Repeat alignments (3) and (4) several times.					

SYSTEM CONNECTION



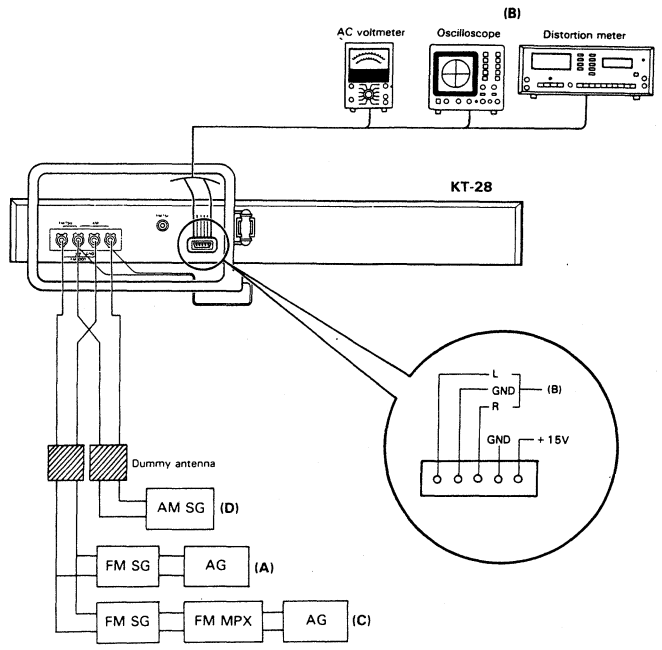
REGLAGE

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER	POINT DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF		Sauf en cas d'indications spéciales, régler chaque commutateur comme suit: SELECTEUR: FM					
1	BORD DE BANDE (1)	(A) 88,0MHz 1kHz.±75kHz dév	(B)	88,0MHz	L7	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
2	BORD DE BANDE (2)	(A) 108,0MHz 1kHz.±75kHz dév	(B)	108,0MHz	TC1	Amplitude et symétrie maximale de l'affichage de l'occilloscope.	
Répéter les points 1 et 2 plusieurs fois.							
3	ALIGNEMENT HT	(A) 98,0MHz 1kHz.±75kHz dév	(B)	MONO 98,0MHz	L2. 4	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
4	DISCRIMINATEUR	(A) 98,0MHz 1kHz.±75kHz dév 60dBμ(Entrée ANT)	–	MONO 98,0MHz	T2	Distortion minimale.	
5	VCO	(A) 98,0MHz 0 dév 60dBμ(Entrée ANT)	Relier une résistance de 330kΩ à TP11. Raccorder un compteur de fréquence à une résistance par l'intermédiaire d'un voltmètre CA.	98,0MHz	VR2	19,00kHz	(a)
SECTION MA		Laisser l'antenne bouche MA installée. SELECTEUR: AM					
(1)	BORD DE BANDE (1)	–	(B)	528kHz	L9	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(2)	BORD DE BANDE (2)	–	(B)	1611kHz	TC3	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
Répéter les points (1) et (2) plusieurs fois.							
(3)	ALIGNEMENT HT (1)	(C) 600kHz 400Hz.30% mod	(B)	600kHz	L11	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
(4)	ALIGNEMENT HT (2)	(C) 1400kHz 400Hz.30% mod	(B)	1400kHz	TC2	Amplitude et symétrie maximale de l'affichage de l'oscilloscope.	
Répéter les points (3) et (4) plusieurs fois.							

ABGLEICH

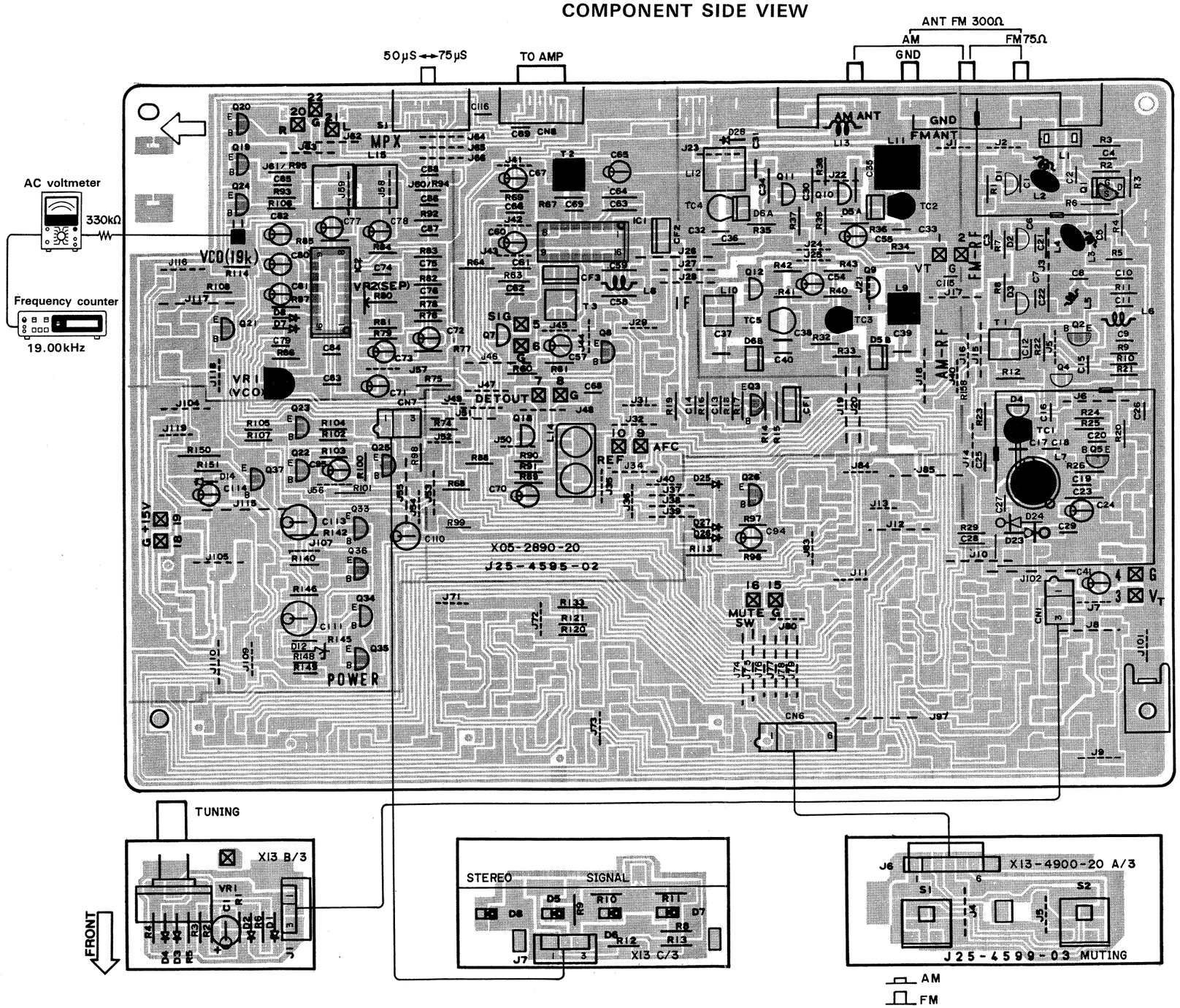
NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER-EINSTELLUNG	ABGLEICH-PUNKTE	ABGLEICHEN FÜR	ABB.
UKW-EMPFANGSABTEILUNG		Außer wenn anders angegeben, die verschiedenen Schalter wie folgt einstellen: SELECTOR: FM					
1	BANDKANTE (1)	(A) 88,0MHz 1kHz.±75kHz Hub	(B)	88,0MHz	L7	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
2	BANDKANTE (2)	(A) 108,0MHz 1kHz.±75kHz Hub	(B)	108,0MHz	TC1	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
		Abstimmungen 1 und 2 mehrere Male wiederholen.					
3	EMPFANGS-BEREICH-ABSTIMMUNGEN	(A) 98,0MHz 1kHz.±75kHz Hub	(B)	MONO 98,0MHz	L2, 4	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
4	DISKRIMINATOR	(A) 98,0MHz 1kHz.±75kHz Hub 60dBμ(ANT Eingang)	–	MONO 98,0MHz	T2	Minimal Klirrfaktor.	
5	SPANNUNGS-GEREGELTER OSZILLATOR	(A) 98,0MHz 0 Hub 60dBμ(ANT Eingang)	Einen 330kΩ Widerstanden zu TP11 anschließen. Einen Frequenzzähler über einen Wechselspannungsmesser an den Widerstand anschließen.	98,0MHz	VR1	19,00kHz	(a)
MW-EMPFANGSABTEILUNG		Die MW-Rahmenantenne angebracht lassen. SELECTOR: AM					
(1)	BANDKANTE (1)	–	(B)	528kHz	L9	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(2)	BANDKANTE (2)	–	(B)	1611kHz	TC3	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
		Abstimmungen (1) und (2) mehrere Male wiederholen.					
(3)	HF-ABGLEICH (1)	(C) 600kHz 400Hz.30% mod	(B)	600kHz	L11	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
(4)	HF-ABGLEICH (2)	(C) 1400kHz 400Hz.30% mod	(B)	1400kHz	TC2	Maximal Amplitude und Symmetrie des Oszilloskopbildes.	
		Abstimmungen (3) und (4) mehrere Male wiederholen.					

SYSTEM CONNECTION



PC BOARD

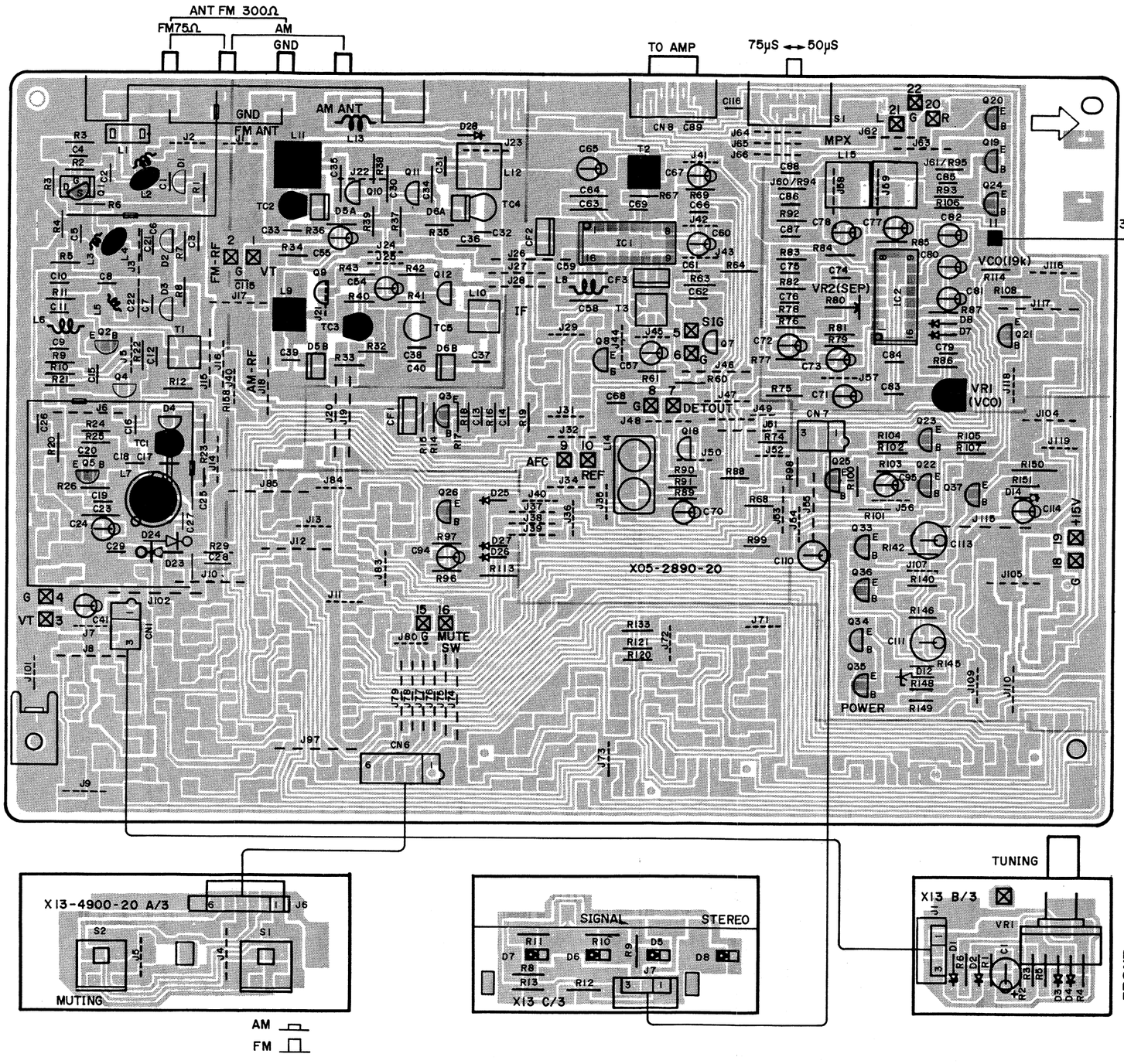
COMPONENT SIDE VIEW



Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD

FOIL SIDE VIEW



Voltage tables (X05-2890-XX)

IC1

11	FM : 5.6V

Q1

G	–
S	–
D	12V

Q2

E	–
C	12.4V
B	2.1V

Q3

E	1.1V
C	10V
B	1.8V

Q5

E	–
C	12V
B	–

Q19

E	–
C	–
B	MUTE ON : 0.7V

Q20

E	–
C	–
B	MUTE ON : 0.7V

Q24

E	–
C	MUTE ON : 0.7V
B	–

Q26

E	5.6V
C	–
B	–

Q33

E	12V
C	–
B	–

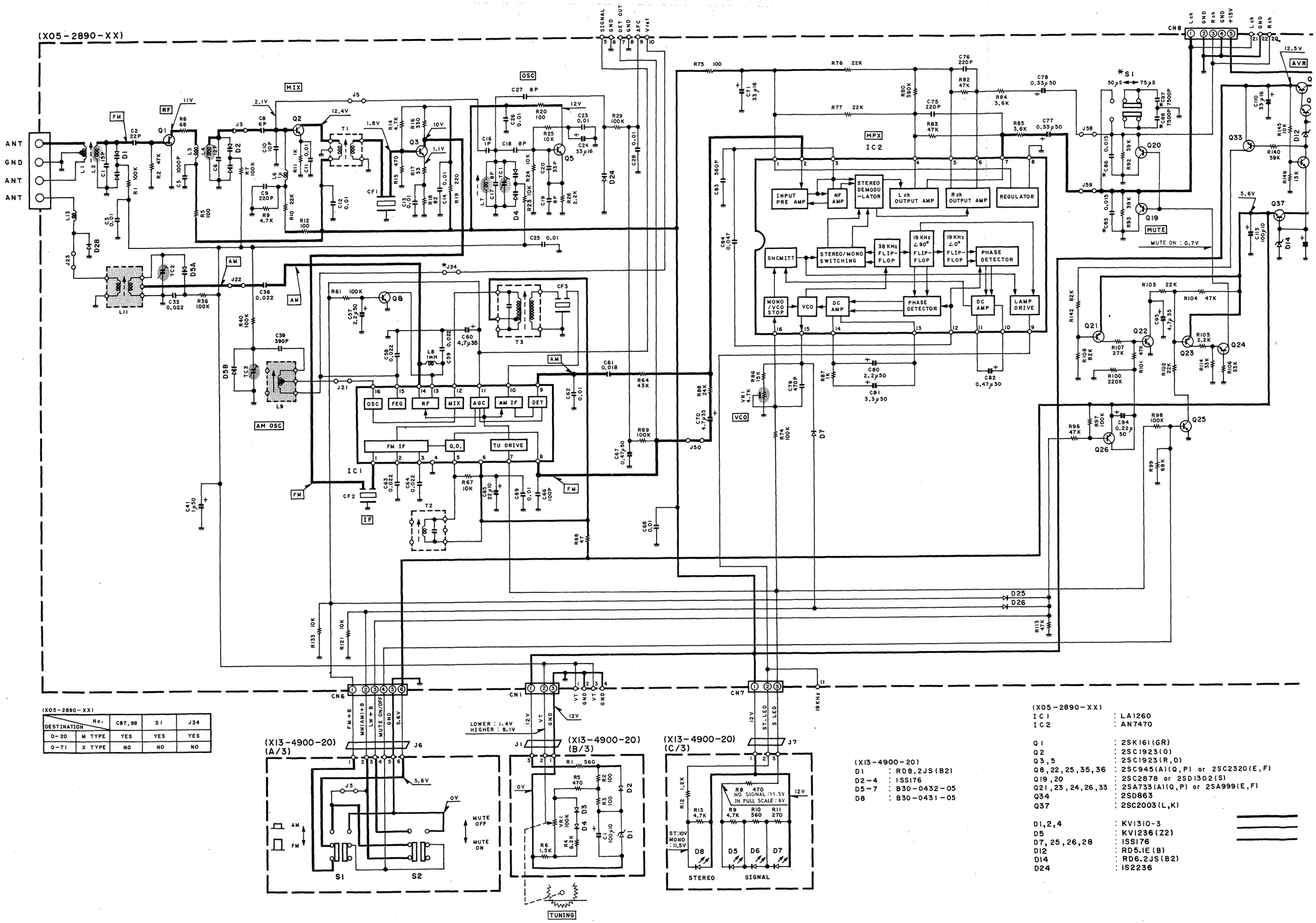
Q34

E	12.5V
C	15V
B	–

Q37

E	5.6V
C	10.5V
B	–

Refer to the schematic diagram for the values of resistors and capacitors.



(X05-2890-XX)

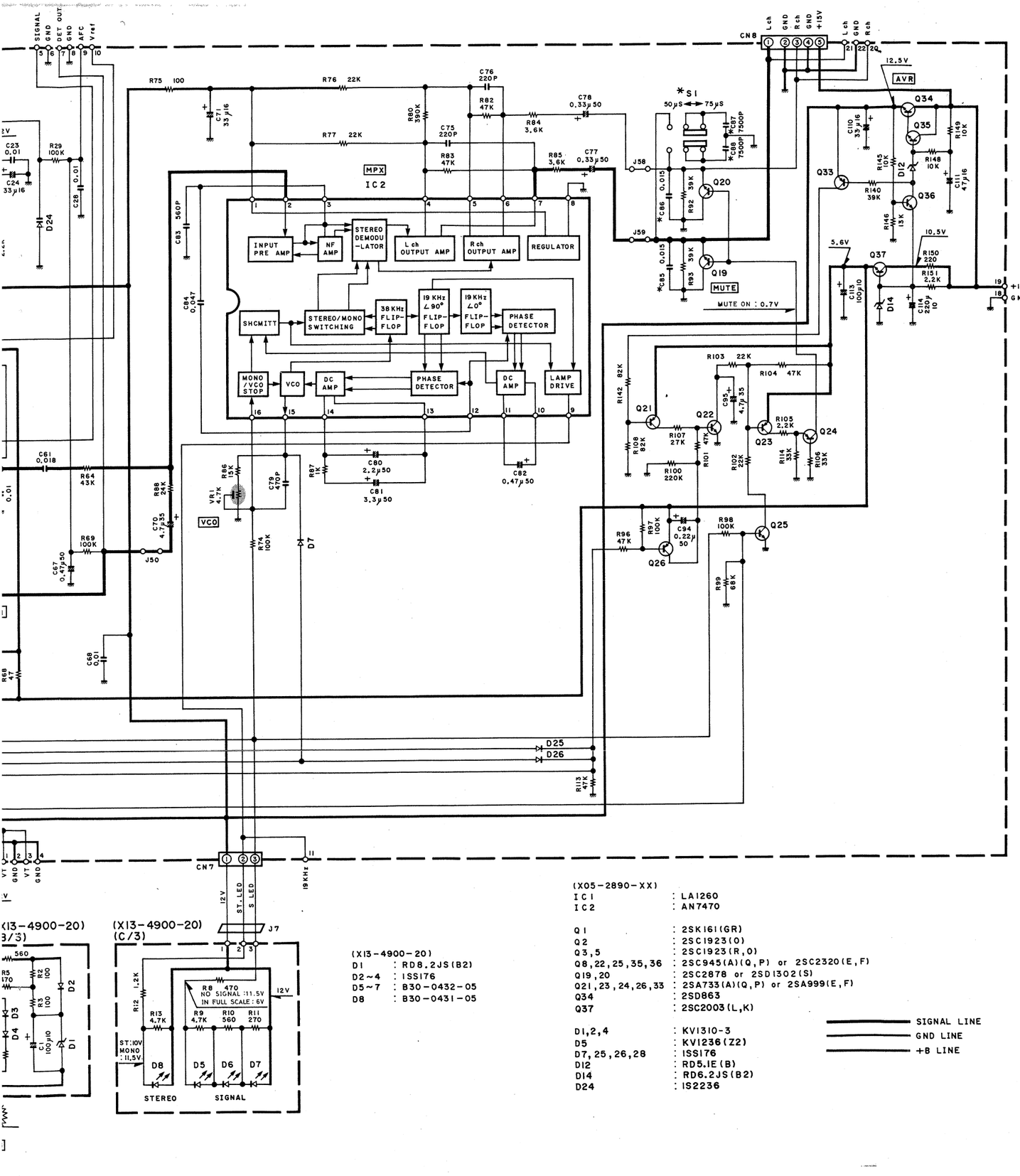
DESTINATION	No.	C87,88	S1	J34
0-20	M TYPE	YES	YES	YES
0-71	X TYPE	NO	NO	NO

(X13-4900-20)

D1	: RD8.2JS(B2)
D2~4	: 1SS176
D5~7	: B30-0432-05
D8	: B30-0431-05

(X05-2890-XX)

IC1	: LA1260
IC2	: AN7470
Q1	: 2SK161(GR)
Q2	: 2SC1923(O)
Q3,5	: 2SC1923(R,O)
Q8,22,25,35,36	: 2SC945(A)(Q,P) or 2SC2320(E,F)
Q19,20	: 2SC2878 or 2SD1302(S)
Q21,23,24,26,33	: 2SA733(A)(Q,P) or 2SA999(E,F)
Q34	: 2SD863
Q37	: 2SC2003(L,K)
D1,2,4	: KV1310-3
D5	: KV1236(Z2)
D7,25,26,28	: 1SS176
D12	: RD5.1E(B)
D14	: RD6.2JS(B2)
D24	: 1S2236



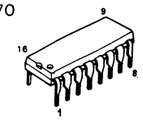
(X13-4900-20)
D1 : RD8.2JS(B2)
D2~4 : 1SS176
D5~7 : B30-0432-05
D8 : B30-0431-05

(X05-2890-XX)

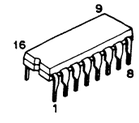
IC1	: LA1260
IC2	: AN7470
Q1	: 2SK161(GR)
Q2	: 2SC1923(O)
Q3,5	: 2SC1923(R,O)
Q8,22,25,35,36	: 2SC945(A)(Q,P) or 2SC2320(E,F)
Q19,20	: 2SC2878 or 2SD1302(S)
Q21,23,24,26,33	: 2SA733(A)(Q,P) or 2SA999(E,F)
Q34	: 2SD863
Q37	: 2SC2003(L,K)
D1,2,4	: KV1310-3
D5	: KV1236(Z2)
D7,25,26,28	: 1SS176
D12	: RD5.1E(B)
D14	: RD6.2JS(B2)
D24	: 1S2236

SIGNAL LINE
GND LINE
+B LINE

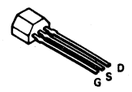
AN7470



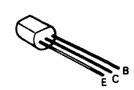
LA1260



2SK161



2SA733 (A)
2SA999
2SC1923
2SC2003
2SC2320
2SC2878
2SC945 (A)
2SD1302
2SD863



DC voltages are as measured with a high impedance voltmeter during reception of the FM broadcast signal (with a signal strength of 60 dB at the ANT terminal). Values may vary slightly due to variations between individual instruments or/and units. Values in parentheses are as measured during reception of the AM broadcast signal (with a signal strength of 60 dB at the ANT terminal).

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance pendant la réception d'un signal de programme FM (avec une force de signal de 60 dB à la borne ANT). Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels. Les valeurs entre parenthèses doivent être mesurées pendant la réception d'un signal de programme AM avec une force de signal de 60 dB à la borne ANT).

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser bei Empfang eines UKW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u.U. geringfügig. Die eingeklammerten Gleichspannungswerte wurden bei Empfang eines MW-Signals (mit einer Feldstärke von 60 dB am Antennenanschluß) gemessen.

CAUTION: For continued safety, replace safety critical components only with manufacture's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KT-28
KENWOOD

PARTS LIST

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KT-28			
1	1B	*	A01-1646-01	METALLIC CABINET		
2	2A	*	A20-5526-02	PANEL ASSY	M	
2	2A	*	A20-5527-02	PANEL ASSY	X	
6	1B	*	B21-0065-04	DIAL POINTER		
-			B46-0096-13	WARRANTY CARD	X	
-		*	B50-8779-00	INSTRUCTION MANUAL(ENG,FRE)		
-		*	B50-8887-00	INSTRUCTION MANUAL(SPA,ARA)	M	
10	2A	*	D15-0230-03	PULLEY		
14	1A	*	E30-2373-05	CORD WITH CONNECTOR		
18	1A		G01-0368-04	EXTENSION SPRING		
19	1A		G10-0086-04	NON-WOVEN FABRIC		
-		*	H01-7784-04	ITEM CARTON CASE		
-			H10-3305-02	POLYSTYRENE FOAMED FIXTURE		
-			H12-1136-04	CARTON BOARD		
-			H25-0223-04	PROTECTION BAG (750X350X0.03)		
-			H25-0232-04	PROTECTION BAG (235X350X0.03)		
23	2B		J19-0506-05	UNIT HOLDER		
24	3B		J19-0626-12	ANTENNA HOLDER		
28	3A		K27-1445-04	KNOB (BUTTON)		
29	2B		K29-2046-04	KNOB ASSY		
38	1A		T90-0104-25	LOOP ANTENNA		
39	1A		T90-0132-05	T TYPE ANTENNA		
			TUNER UNIT (X05-2890-20)			
C1			CC45FSL1H150J	CERAMIC 15PF J		
C2			CC45FSL1H220J	CERAMIC 22PF J		
C3			CK45FF1H103Z	CERAMIC 0.010UF Z		
C5			CK45FB1H102K	CERAMIC 1000PF K		
C6			CC45FSL1H120J	CERAMIC 12PF J		
C8			CC45FSL1H060D	CERAMIC 6.0PF D		
C9			CC45FSL1H221J	CERAMIC 220PF J		
C10			CC45FSL1H100D	CERAMIC 10PF D		
C11 -14			CK45FF1H103Z	CERAMIC 0.010UF Z		
C16			CC45FSL1H010C	CERAMIC 1.0PF C		
C17		*	CC45FCH1H080D	CERAMIC 8.0PF D		
C18 ,19			CC45FSL1H080D	CERAMIC 8.0PF D		
C20			CC45FSL1H330J	CERAMIC 33PF J		
C23			C91-0769-05	CERAMIC 0.01UF M		
C24			CE04FW1C330M	ELECTRO 33UF 16WV		
C25 ,26			CK45FF1H103Z	CERAMIC 0.010UF Z		
C27		*	CC45FPH1H080D	CERAMIC 8.0PF D		
C28			C91-0769-05	CERAMIC 0.01UF M		
C33			CK45FF1H223Z	CERAMIC 0.022UF Z		
C36			C91-0085-05	CERAMIC 0.022UF N		
C39			CC93FCH1H391J	CERAMIC 390PF J		
C41			CE04FW1H010M	ELECTRO 1.0UF 50WV		
C57			CE04FW1H2R2M	ELECTRO 2.2UF 50WV		
C58 ,59			C91-0085-05	CERAMIC 0.022UF N		
C60			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C61			CF92FV1H183J	MF 0.018UF J		

E: Scandinavia & Europe **K**: USA **P**: Canada **W**:Europe
U: PX(Far East, Hawaii) **T**: England **M**: Other Areas
UE: AAFES(Europe) **X**: Australia

⚠ indicates safety critical components.

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C62			CK45FF1H103Z	CERAMIC 0.010UF Z		
C63 ,64			C91-0085-05	CERAMIC 0.022UF N		
C65			CE04FW1A220M	ELECTRO 22UF 10WV		
C66			CC45FSL1H101J	CERAMIC 100PF J		
C67			CE04FW1HR47M	ELECTRO 0.47UF 50WV		
C68 ,69			CK45FF1H103Z	CERAMIC 0.010UF Z		
C70			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C71			CE04FW1C330M	ELECTRO 33UF 16WV		
C75 ,76			CC45FSL1H221J	CERAMIC 220PF J		
C77 ,78			CE04FW1HR33M	ELECTRO 0.33UF 50WV		
C79			CC93FCH1H471J	CERAMIC 470PF J		
C80			CE04FW1H2R2M	ELECTRO 2.2UF 50WV		
C81			CE04FW1H3R3M	ELECTRO 3.3UF 50WV		
C82			CE04FW1HR47M	ELECTRO 0.47UF 50WV		
C83			CK45FB1H561K	CERAMIC 560PF K		
C84			CF92FV1H473J	MF 0.047UF J		
C85 ,86			CF92FV1H153J	MF 0.015UF J		
C87 ,88			CF92FV1H752J	MF 7500PF J	M	
C94			CE04FW1HR22M	ELECTRO 0.22UF 50WV		
C95			CE04FW1V4R7M	ELECTRO 4.7UF 35WV		
C110			CE04FW1C330M	ELECTRO 33UF 16WV		
C111			CE04FW1C470M	ELECTRO 47UF 16WV		
C113			CE04FW1A101M	ELECTRO 100UF 10WV		
C114			CE04FW1A221M	ELECTRO 220UF 10WV		
TC1			C05-0302-05	CERAMIC TRIMMER CAPACITOR(11PF		
TC2 ,3			C05-0303-05	CERAMIC TRIMMER CAPACITOR(20PF		
43	2B		E23-0125-05	TERMINAL		
E1	2B		E08-0503-05	RECTANGULAR RECEPTACLE(10 AMP)		
E2	2B		E20-0452-05	SCREW TERMINAL BOARD(4P)FM,AM		
CF1 ,2			L72-0136-05	CERAMIC FILTER		
CF3			L72-0099-05	CERAMIC FILTER		
L1			L31-0518-05	FM-RF COIL		
L2		*	L31-0530-05	FM-RF COIL		
L3			L31-0527-05	FM-RF COIL		
L4			L31-0521-05	FM-RF COIL		
L6			L40-1092-14	SMALL FIXED INDUCTOR(1.0UH,M)		
L7		*	L32-0316-05	FM OSCILLATING COIL		
L8			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)		
L9			L32-0277-15	MW OSCILLATING COIL		
L11			L31-0509-05	MW-RF COIL		
L13			L40-1092-14	SMALL FIXED INDUCTOR(1.0UH,M)		
T1		*	L30-0429-05	AM IFT		
T2			L30-0428-05	FM IFT		
T3			L30-0362-05	AM IFT		
R5			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		X
R12			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		X
R20			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		X
R75			RD14GB2E101J	FL-PROOF RD 100 J 1/4W		X
R150			RS14KB3A221J	FL-PROOF RS 220 J 1W		
VR1			R12-1069-05	TRIMMING POT.(4.7K) VCO		
S1	2B		S31-2094-05	SLIDE SWITCH (DE-EMPH)	M	
D1 ,2			KV1310-3	VARIABLE CAPACITANCE DIODE		

E: Scandinavia & Europe **K**: USA **P**: Canada **W**:Europe
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UE: AAFES(Europe) **X**: Australia

⚠ indicates safety critical components.

* New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Telle ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D4			KV1310-3	VARIABLE CAPACITANCE DIODE		
D5			KV1236(Z2)	VARIABLE CAPACITANCE DIODE		
D7			1SS176	DIODE		
D12			RD5.1E(B)	ZENER DIODE		
D14			RD6.2JS(B2)	ZENER DIODE		
D24			1S2236	VARIABLE CAPACITANCE DIODE		
D25 ,26			1SS176	DIODE		
D28			1SS176	DIODE		
IC1			LA1260	IC(FM/AM TUNER)		
•IC2			AN7470	IC(FM MPX)		
Q1			2SK161(GR)	FET		
Q2			2SC1923(O)	TRANSISTOR		
Q3			2SC1923(R,O)	TRANSISTOR		
Q5			2SC1923(R,O)	TRANSISTOR		
Q8			2SC2320(E,F)	TRANSISTOR		
Q8			2SC945(A)(Q,P)	TRANSISTOR		
Q19 ,20			2SC2878	TRANSISTOR		
Q19 ,20			2SD1302(S)	TRANSISTOR		
Q21			2SA733(A)(Q,P)	TRANSISTOR		
Q21			2SA999(E,F)	TRANSISTOR		
Q22			2SC2320(E,F)	TRANSISTOR		
Q22			2SC945(A)(Q,P)	TRANSISTOR		
Q23 ,24			2SA733(A)(Q,P)	TRANSISTOR		
Q25			2SC2320(E,F)	TRANSISTOR		
Q25			2SC945(A)(Q,P)	TRANSISTOR		
Q26			2SA733(A)(Q,P)	TRANSISTOR		
Q26			2SA999(E,F)	TRANSISTOR		
Q33			2SA733(A)(Q,P)	TRANSISTOR		
Q33			2SA999(E,F)	TRANSISTOR		
Q34			2SD863	TRANSISTOR		
Q35 ,36			2SC945(A)(Q,P)	TRANSISTOR		
Q37			2SC2003(L,K)	TRANSISTOR		
Q23,24			2SA999(E,F)	TRANSISTOR		
Q35,36			2SC2320(E,F)	TRANSISTOR		
SUB-CIRCUIT UNIT (X13-4900-20)						
D5 -7	2A		B30-0432-05	LED(LN31GCPH(U) SIGNAL 1-3		
D8	2A		B30-0431-05	LED(LN21CPH) STEREO		
C1			CE04FW1A101M	ELECTRO 100UF 10WV		
VR1	2A	*	R01-5055-05	POTENTIOMETER(100K E)		
S1 ,2	2A,2B		S40-2323-05	PUSH SWITCH		
D1		*	RD8.2JS(B2)	ZENER DIODE		
D2 -4			1SS176	DIODE		

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KT-28

SPECIFICATIONS

KT-28

[FM tuner section]	
Usable sensitivity	10.8 dBf (0.95 μV)
50dB quieting sensitivity	
Mono	14.5 dBf (3 μV)
Stereo	37.2 dBf (40 μV)
Signal to noise ratio	
Mono	70 dB at 65 dBf, 70 dB at 85 dBf
Stereo	64 dB at 65 dBf, 64 dB at 85 dBf
Total harmonic distortion	
Mono: 100 Hz	0.3%
1 kHz	0.3%
50 Hz ~ 10 kHz	0.6%
Stereo: 100 Hz	0.4%
1 kHz	0.4%
50 Hz ~ 10 kHz	0.9%
Capture ratio	2.0 dB
Alternate channel selectivity	50 dB
Stereo separation	
1 kHz	45 dB
50 Hz ~ 10 kHz	35 dB
Frequency response	30 Hz to 15 kHz +0.5 dB, −2.5 dB
Spurious rejection ratio	75 dB
Image rejection ratio	40 dB
IF rejection ratio	90 dB
AM suppression ratio	55 dB
Antenna impedance	75 Ω unbalanced & 300 Ω balanced
Subcarrier suppression ratio	35 dB
FM frequency range	87.5 MHz to 108 MHz
[AM tuner section]	
Usable sensitivity	20 μV (400 μV/m)
Signal to noise ratio	50 dB
Total harmonic distortion	0.6%
Image rejection	35 dB
Selectivity	25 dB
[General]	
Dimensions	W: 420 mm (16-9/16") H: 63 mm (2-1/2") D: 227 mm (8-15/16")
Weight (Net)	1.5 kg (3.3 lb)

Kenwood follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui doncerne le développement. Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige, Verbesserungen in der Entwicklung an. Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

Note

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the General Market (M) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

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